SYSTEM FOR LOCKING THE SIDES OF CRIBS FOR INFANTS

FIELD OF THE INVENTION

[0001] The present invention relates to cots or cribs for infants, where the cribs are of the type having at least one movable side which can be raised and lowered parallel to the uprights of the crib, and relates in particular to a system for locking such a side in the raised position.

BACKGROUND OF THE INVENTION

[0002] As is known, in some cribs of the aforesaid type the side is provided laterally with pins designed to slide in guide grooves provided along the crib uprights adjacent to it. The top of each guide groove has a curve and continues with a terminal portion turned downwards, in such a way that, in order to be able to lower the side from the raised position, it is first necessary to raise it and guide it along the curves.

[0003] A standard applicable in this field in relation to safety systems for cribs specifies that at least two separate movements must be made in order to be able to unlock the side from the raised position. The standard is intended to make it practically impossible for the side to be unlocked in an involuntary or random way, or by the infant occupying the crib.

SUMMARY OF THE INVENTION

[0004] The object of the present invention is to provide a locking system for sides of cribs for infants which conforms to the latest safety standards, in other words one which requires at least two separate movements to enable the side to be unlocked and then lowered.

[0005] According to the invention, a system for locking the sides of cribs or cots for infants is provided in which at least one crib side can be raised and lowered along the uprights adjacent to it. The side is provided on each side with a pin which is slidable in a guide groove provided along each of the uprights. The top of the groove has a curve and continues with a terminal portion directed downwards. The terminal portion is shaped in such a way as to form an undercut in which the pin is designed to be engaged, thus preventing the raising of the side. A recess is formed opposite the undercut and communicates with the guide groove with the interposition of a flat spring. The flat spring is configured so that it normally keeps the pin in the undercut and so that, when it is bent back by a force exerted on the side, it enables the pin to move into the recess to a sufficient extent to become disengaged from the undercut and continue along the guide groove.

[0006] The curve of the guide groove may be directed towards the interior of the crib, and the undercut may be directed in the opposite direction.

[0007] The guide groove and the recess may be formed in a longitudinal plate to be fixed to an upright of the crib, and in which the flat spring is partially embedded in the plate. The plate may be made from plastic material.

[0008] The guide groove and the pin may have complementary T-shaped cross sections.

[0009] Further details of the invention will be made clearer by the remainder of the description, given with reference to the attached drawings, which are provided for guidance and without restrictive intent. The various features of novelty which characterize the invention are pointed out with particularity in the claims annexed to and forming a part of this disclosure. For a better understanding of the invention, its operating advantages and specific objects attained by its uses, reference is made to the accompanying drawings and descriptive matter in which a preferred embodiment of the invention is illustrated.

BRIEF DESCRIPTION OF THE DRAWINGS

[0010] Fig. 1 is a perspective view of an example of a crib for infants with its sides in the raised position;

[0011] Fig. 2 is the crib of Fig. 1 with one side in the lowered position;

[0012] Fig. 3 is a front elevation view of the side locking system according to the invention; and

[0013] Fig. 4 is an enlarged detail of the locking system shown in Fig. 3, seen from the side of the upright to which it is fitted.

DESCRIPTION OF THE PREFERRED EMBODIMENT

[0014] Referring to the drawings in particular, number 10 indicates the frame of a crib for infants, comprising four corner uprights 11, two ends 12, usually fixed, and two sides 13, 13', at least one of which (side 13) can be raised and lowered along the uprights adjacent to it. For this purpose, a longitudinal plate 14, made for example of plastic material, in which a guide groove 15 is formed, is fitted along each of the uprights. Correspondingly, a pin 16 designed to slide in the facing guide groove 15 extends from each of the two sides of the crib side. The top of this groove has a curve 17, preferably directed towards the inside of the crib, and continues with a terminal portion 17' turned downwards. The terminal portion 17' is shaped in such a way as to form an undercut 18 in which the pin 16 is designed to be engaged, thus preventing the raising of the side from the raised position. A recess 19 is formed in the plate 14 opposite the undercut, and communicates with the guide groove with the interposition of a flat spring 20 having one end embedded in the plate. The flat spring 20 is configured so that it normally keeps the pin 16 in the undercut 18, or guides it towards the end of the guide groove when the side is moved from the lowered to the raised position.

[0015] When the pin 16 is engaged in the undercut 18, the side can then be pushed horizontally towards the flat spring 20, causing it to yield. When the spring is pushed back, the pin 16 becomes free to move, at least partially, into the recess 19, at which point it will have the necessary space to become disengaged from the undercut 18 and to continue along the guide groove 15.

[0016] Clearly, therefore, the side can be lowered from the raised position only if two separate movements are carried out, namely a movement in which the side is pushed forwards to disengage it from the undercut of the guide groove, and a subsequent raising movement. Finally, as shown in Figs. 3 and 4, the guide groove 15 and consequently the pin 16 advantageously have a T-shaped cross section in order to prevent any disengagement from each other.

[0017] While a specific embodiment of the invention has been shown and described in detail to illustrate the application of the principles of the invention, it will be understood that the invention may be embodied otherwise without departing from such principles.